Specification on page 4 and claim 29 are corrected for indicating of more details about improvement by this invention of disadvantages of cellular grid showed in background of the invention.

Specification on page 5 is corrected for more accurate definition.

Specification on page 8 and claim 31 are amended in connection with right observation of examiner that source wasn't claimed in this application (page 2, lines 7-8).

Claim 41 is amended to make clear difference between present and Caldwall's invention which never indicated cellular structure of rectangular grid in connection with protection covers (with rotating disk only, see Caldwall, fig. 3, position 59 and page 3, line 124, same position 59); and difference between present and Millenaar invention which never indicated protection covers of grid in connection with cellular structures, only with linear.

With respect to the Examiner's objection it is submitted several additional following explanations for this Amendment.

Before this invention it was never introduced the cellular structures of X-ray grids which have rigid framework as support for completely covering of it by X-ray absorbing layer as indicated in claims 29,32-36. Without

this desgn is impossible practically to realize such advance maximum effectively X-ray optic imaging system as X-ray Cellular grid introduced in the present invention.

It is impossible to obtain information about early pathologies in X-ray images if cells of grid contain material which is not gas or vacuum. In this invention in claims 37 - 39 first time is introduced the design of cellular structure of X-ray grid filled by gas or vacuum which joined with X-ray transmitted plates covering surfaces of cellular structure of grid, said plates can close the cells hermetically for keeping constantly their physical properties such as gas or vacuum.

Caldwall in his invention always indicated elimination of screen shadow by arranging of cells diagonally or under angle of 45 degrees (including lines 27-35 of page 2 of patent of Caldwall, as mentioned in page 3 of Office Action, and also for example in claims 1-7,12-14). In present invention sides of cells oriented under angles of formulas of Mattsson which depend from length of sides of cells and thickness of partitions between them, and this orientation of cells is absolutely difference from 45 degrees or diagonally arrangement, and provides absolutely uniform surfaces of images without any artifacts on them which never

can obtain with Caldwall's grid and his orientations of cells which, as result always would create artifacts on images, and quality of X-ray diagnostic with Caldwall's orientations of cells of grid always would be much worse than with present invention which never creates artifacts on the image. Experiments confirmed submitted arguments.

Advance quality of images with the Cellular grid filled by air under present invention confirmed practically by phantom tests and medical trials.

Unfortunately, it isn't any opportunities to compare grid under present invention with Caldwall's grid to confirm all theoretical arguments written above because Caldwall's grid was never built, and it is impossible to build it.

Finally, Caldwall's focused grid is cylindrical with partitions which perpendicularly orientated onto cylindrical surfaces of grid as showed on fig. 1 of it diagram. Development of this design to flat cellular screen as indicated in line 105 page 3 of Caldwall will have a result system with the same partitions oriented same perpendicularly to surfaces of grid and obviously these partitions will be parallel each other, and such grid is parallel, not focused grid. Obtain of images with parallel cellular grid from focus point of modern X-ray unit would

have a result very bad quality of image with irregular density by decreasing said density from center to periphery of image and even possibility of cutting of part of image on peripheral it portions.

In view of the foregoing, it is respectfully submitted that all the claims now in the application are patentably distinguishable over the references of record and, accordingly, allowance of the claims and passage of the application to issue at an early date are earnestly solicited.

Respectfully submitted,

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Enclosures:
1. Request for filing of Continuation-2 pages.
2. Check $375.00.

I hereby certify that this correspondence and attached documents are being deposited with the United States Postal Service on this date March 14, 1996 in an envelope "Express Mail United States Postal Service" mailing Label No.EG330213974US addressed to: Commissioner of Patents and Trademarks, Washington D.C. 20231

Oleg Sokolov Date: 03/14/96
Oleg Sokolov

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that these documents: Request for filing Continuation of prior Patent application No. 08/370,827 entitled "Cellular X-ray Grid", Amendment in the reply to the final Office Action at December 27, 1995 , and attached referred documents are being deposited with the United States Postal Service an envelope "Express Mail United States Postal Service" mailing No. EG330213974US on this date March 14, 1996 addressed to the: Commissioner of Patents and Trademarks Washington, D.C. 20231.

Oleg Sokolov, Applicant

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